

## Task-1

```
CREATE TABLE LOCATION (  
  LocationCode char(3),  
  LocationName varchar(50),  
  CONSTRAINT LOCATION_PK PRIMARY KEY(LocationCode));
```

```
CREATE TABLE ROUTE (  
  RouteId char(3),  
  RouteDesc varchar(200),  
  SourceLocationCode char(3),  
  DesLocationCode char(3),  
  CONSTRAINT Route_PK PRIMARY KEY(RouteID),  
  CONSTRAINT Route_FK1 FOREIGN KEY(SourceLocationCode) REFERENCES  
  LOCATION(LocationCode),  
  CONSTRAINT Route_FK2 FOREIGN KEY(DesLocationCode) REFERENCES  
  LOCATION(LocationCode));
```

```
create table MULTIPLESTOPOVERS(  
  RouteID char(3),  
  Locationcode char(3),  
  CONSTRAINT MULTIPLESTOPOVERS_PK PRIMARY KEY(RouteID,LocationCode),  
  CONSTRAINT MULTIPLESTOPOVERS_FK1 FOREIGN KEY(LocationCode) REFERENCES  
  LOCATION(LocationCode),  
  CONSTRAINT MULTIPLESTOPOVERS_FK2 FOREIGN KEY(RouteID) REFERENCES  
  ROUTE(RouteID));
```

```
create table CRUISE (  
  Cruiseid char(3),  
  cruiseName varchar(30),  
  NumOfDays varchar(3),  
  RouteID char(3),  
  primary key (cruiseid),  
  CONSTRAINT CRUISE_FK FOREIGN KEY(RouteID) REFERENCES Route(RouteID));
```

```
create table SCHEDULE (  
  ScheduleId char(4),  
  startdate date,  
  MaxCapacity varchar(3),  
  cruiseid char(3),  
  primary key(scheduleid),  
  CONSTRAINT SCHEDULE_FK FOREIGN KEY(cruiseid) REFERENCES CRUISE(Cruiseid));
```

```
create table TOUR(  
cruiseid char(3),  
tourcode char(3),  
tourname varchar(25),  
tourcost Number(8,2),  
tourtype varchar(20),  
primary key(cruiseid,tourcode),  
CONSTRAINT TOUR_FK FOREIGN KEY(cruiseid) REFERENCES CRUISE(Cruiseid));
```

```
create table STAFF (  
staffid char(3),  
staffname varchar(20),  
managerid char(3),  
position varchar(20),  
StaffPay Number(8,2),  
primary key(staffid)  
-- CONSTRAINT STAFF_FK FOREIGN KEY(managerid) REFERENCES  
STAFF(LocationCode),  
);
```

```
create table ROSTER (  
ScheduleId char(4),  
StaffId char(3),  
StartDateTime date,  
EndDateTime date,  
primary key (ScheduleID, Staffid),  
CONSTRAINT Roster_FK1 FOREIGN KEY(ScheduleId) REFERENCES  
SCHEDULE(ScheduleId),  
CONSTRAINT Roster_FK2 FOREIGN KEY(StaffId) REFERENCES STAFF(StaffId)  
);
```

```
create table QUALIFICATIONS (  

```

```
staffid char(3),
skillname varchar(20),
primary key(staffid, skillname),
CONSTRAINT Qualifications_FK FOREIGN KEY(StaffId) REFERENCES STAFF(StaffId)
);
```

```
create table MODEL (
modelid char(3),
modelname varchar(15),
modelcapacity varchar(5),
primary key(modelid));
```

```
create table VESSEL (
vesselid char(3),
vesselname varchar(20),
vpurchaseyear varchar(5),
modelid char(3),
primary key(vesselid),
CONSTRAINT VESSEL_FK FOREIGN KEY(modelid) REFERENCES MODEL(modelid));
```

```
create table BOOKING (
vesselid char(3),
cruiseid char(3),
fromdate date,
todate date,
primary key(vesselid, cruiseid),
CONSTRAINT BOOKING_FK1 FOREIGN KEY(vesselid) REFERENCES VESSEL(vesselid),
CONSTRAINT BOOKING_FK2 FOREIGN KEY(cruiseid) REFERENCES CRUISE(cruiseid)
);
```

```
create table SERVICEDOCK(
servicedockid char(4),
servicedockname varchar(30),
primary key(servicedockid));
```

```
create table SERVICE (
vesselid char(3),
servicedockid char(4),
servicedate date,
primary key(vesselid,servicedockid),
```

```
--CONSTRAINT SERVICE_FK1 FOREIGN KEY(vesselid) REFERENCES VESSEL(vesselid),
--CONSTRAINT SERVICE_FK2 FOREIGN KEY(servicedockid) REFERENCES
SERVICE(servicedockid)
);
```

```
insert into LOCATION values('L01','Australia');
insert into LOCATION values('L02','America');
insert into LOCATION values('L03','Switzerland');
insert into LOCATION values('L04','India');
insert into LOCATION values('L05','Sri Lanka');
insert into LOCATION values('L06','Taiwan');
insert into LOCATION values('L07','Japan');
insert into LOCATION values('L08','Egypt');
insert into LOCATION values('L09','Pakistan');
insert into LOCATION values('L10','Maldives');
insert into LOCATION values('L11','Croatia');
```

```
insert into ROUTE values('R01','The cruise is 11 days and 10 nights, from Hobart to
Hobart','L01','L01');
insert into ROUTE values('R02','The cruise is 10 days and 9 nights, from Pacific Guatemala to
Panama Caribbean coast','L02','L02');
insert into ROUTE values('R03','The cruise is 15 days and 14 nights, from St Moritz to
Zermatt','L03','L03');
insert into ROUTE values('R04','The cruise is 11 days and 10 nights, from Delhi to
Kerala','L04','L04');
insert into ROUTE values('R05','The cruise is 12 days and 11 nights, from Colombo to
Hambantota','L05','L05');
insert into ROUTE values('R06','The cruise is 20 days and 19 nights, from Kaohsiung to
Keelung','L06','L06');
insert into ROUTE values('R07','The cruise is 16 days and 15 nights, from Naze to
Tokyo','L07','L07');
insert into ROUTE values('R08','The cruise is 17 days and 16 nights, from Edfu to Kom
Ombo','L08','L08');
insert into ROUTE values('R09','The cruise is 18 days and 17 nights, from Kemari to
Gawadar','L09','L09');
insert into ROUTE values('R10','The cruise is 18 days and 17 nights, from Baros to
Joali','L10','L10');
```

insert into ROUTE values('R11','The cruise is 18 days and 17 nights, from Rab to Istria','L11','L11');

insert into MULTIPLESTOPOVERS values('R01','L01');  
insert into MULTIPLESTOPOVERS values('R02','L02');  
insert into MULTIPLESTOPOVERS values('R03','L03');  
insert into MULTIPLESTOPOVERS values('R04','L04');  
insert into MULTIPLESTOPOVERS values('R05','L05');  
insert into MULTIPLESTOPOVERS values('R06','L06');  
insert into MULTIPLESTOPOVERS values('R07','L07');  
insert into MULTIPLESTOPOVERS values('R08','L08');  
insert into MULTIPLESTOPOVERS values('R09','L09');  
insert into MULTIPLESTOPOVERS values('R10','L10');  
insert into MULTIPLESTOPOVERS values('R11','L11');

insert into CRUISE values('CO1','Hiraeth Cruise','11','R01');  
insert into CRUISE values('CO2','Princess Cruise','10','R02');  
insert into CRUISE values('CO3','Carnival Liberty','15','R03');  
insert into CRUISE values('CO4','Carnival Breeze','11','R04');  
insert into CRUISE values('CO5','Coral Princess','12','R05');  
insert into CRUISE values('CO6','Welcome Aboard','20','R06');  
insert into CRUISE values('CO7','P&O Cruises','16','R07');  
insert into CRUISE values('CO8','Skyscraper Cruises','21','R08');  
insert into CRUISE values('CO9','Luxury Cruise','19','R09');  
insert into CRUISE values('C10','Staycation Cruise','18','R10');  
insert into CRUISE values('C11','OverTheWorld Cruise','23','R11');

insert into SCHEDULE values('SC01','2022-10-21','100','CO1');  
insert into SCHEDULE values('SC02','2022-11-10','150','CO2');  
insert into SCHEDULE values('SC03','2022-11-12','125','CO3');  
insert into SCHEDULE values('SC04','2022-11-15','110','CO4');  
insert into SCHEDULE values('SC05','2022-11-27','175','CO5');  
insert into SCHEDULE values('SC06','2022-11-28','200','CO6');  
insert into SCHEDULE values('SC07','2022-11-30','75','CO7');  
insert into SCHEDULE values('SC08','2022-12-15','190','CO8');  
insert into SCHEDULE values('SC09','2022-12-30','250','CO9');  
insert into SCHEDULE values('SC10',NULL,'170','C10');  
insert into SCHEDULE values('SC11',null,'185','C11');

insert into TOUR values('CO1','TO1','Hiraeth Business','300.00','Deluxe');  
insert into TOUR values('CO2','TO2','Princess Co Business','400.00','Solo');  
insert into TOUR values('CO3','TO3','Travel Business','500.00','Family');

```

insert into TOUR values('CO4','TO4','Explore Business','200.00','Luxury');
insert into TOUR values('CO5','TO5','Azamara Business','600.00','Adventeruous');
insert into TOUR values('CO6','TO6','Celebrity Business','800.00','General');
insert into TOUR values('CO7','TO7','Cruzify Business','700.00','Sightseeing');
insert into TOUR values('CO8','TO8','SkyFull Business','250.00','Romantic');
insert into TOUR values('CO9','TO9','WCruise Business','200.00','Affordable');
insert into TOUR values('C10','T10','WorldCruise Business','300.00','Buisness');
insert into TOUR values('C11','T11','Sunshine Business','500.00','Buisness');

```

```

insert into STAFF values('S01','Shreya Reddy','SO1','Pilot','100');
insert into STAFF values('S02','Candice Lobo','SO2','DJ','200');
insert into STAFF values('S03','Dhavan Mehta','SO3','Host','150');
insert into STAFF values('S04','Shakira Promi','SO4','Instructor','250');
insert into STAFF values('S05','Keval Gandhi','SO5','Waiter','170');
insert into STAFF values('S06','Smriti Kumar','SO6','Assistant','185');
insert into STAFF values('S07','Deepak B','SO7','Housekeeping','225');
insert into STAFF values('S08','Ajay R','SO9','Singer','210');
insert into STAFF values('S09','Arvinhd K','S10','Entertainer','300');
insert into STAFF values('S11','Sandhya Reddy','S11','Crew Member','300');
insert into STAFF values('S12','Madhusudan','S12','Naturalists','300');
insert into STAFF values('S13','Trisha Lokkur','S06','Sport coach','300');
insert into STAFF values('S14','Priyanka P','S07','Guest speaker','300');
insert into STAFF values('S15','Neha Mehta','S13','Clown','300');
insert into STAFF values('S16','Bimal Mehta','S14','Lifeguard','300');

```

```

insert into ROSTER values('SC01','S01','2022-10-21 18:30:00','2022-10-24 02:30:00');
insert into ROSTER values('SC02','S02','2022-11-02 18:40:00','2022-11-05 10:10:00');
insert into ROSTER values('SC03','S03','2022-11-05 19:30:00','2022-11-09 12:00:30');
insert into ROSTER values('SC04','S04','2022-11-15 10:20:00','2022-11-18 17:45:00');
insert into ROSTER values('SC05','S05','2022-11-25 11:45:30','2022-11-28 19:00:00');
insert into ROSTER values('SC06','S06','2022-12-10 17:15:00','2022-12-13 22:25:50');
insert into ROSTER values('SC07','S07','2022-12-17 01:00:00','2022-12-20 03:30:00');
insert into ROSTER values('SC08','S08','2022-12-19 02:00:00','2022-12-25 11:30:00');
insert into ROSTER values('SC09','S09','2022-12-25 03:30:35','2022-12-30 04:30:00');
insert into ROSTER values('SC09','S11','2023-01-15 03:30:35','2023-01-30 04:30:00');
insert into ROSTER values('SC10','S12','2023-02-20 03:30:35','2023-02-23 07:30:00');
insert into ROSTER values('SC11','S13','2023-03-11 03:30:45','2023-03-15 10:30:00');
insert into ROSTER values('SC12','S14','2023-04-25 15:30:35','2023-04-30 04:30:00');

```

```

insert into QUALIFICATIONS values('S01','Swimming');
insert into QUALIFICATIONS values('S02','Writing');
insert into QUALIFICATIONS values('S03','Speaking');
insert into QUALIFICATIONS values('S04','Hosting');

```

```
insert into QUALIFICATIONS values('S05','Dancing');
insert into QUALIFICATIONS values('S06','Singing');
insert into QUALIFICATIONS values('S07','Cooking');
insert into QUALIFICATIONS values('S08','Managing');
insert into QUALIFICATIONS values('S09','Entertaining');
insert into QUALIFICATIONS values('S01','Illusionist');
insert into QUALIFICATIONS values('S01','Chef');
insert into QUALIFICATIONS values('S02','Doctor');
```

```
insert into MODEL values('M01','MODEL-100','150');
insert into MODEL values('M02','MODEL-102','120');
insert into MODEL values('M03','MODEL-104','130');
insert into MODEL values('M04','MODEL-106','100');
insert into MODEL values('M05','MODEL-108','125');
insert into MODEL values('M06','MODEL-110','175');
insert into MODEL values('M07','MODEL-112','200');
insert into MODEL values('M08','MODEL-200','130');
insert into MODEL values('M09','MODEL-2001','140');
insert into MODEL values('M10','MODEL-2002','120');
```

```
insert into VESSEL values('V01','Diamond','2010','M01');
insert into VESSEL values('V02','Best Cruises','2011','M02');
insert into VESSEL values('V03','Carnival','2012','M03');
insert into VESSEL values('V04','Sky','2010','M04');
insert into VESSEL values('V05','Golden','2015','M05');
insert into VESSEL values('V06','Rider','2007','M06');
insert into VESSEL values('V07','Mignon','2016','M07');
insert into VESSEL values('V08','Happy','2017','M08');
insert into VESSEL values('V09','Voyages','2019','M09');
insert into VESSEL values('V10','LovelyCruise','2021','M10');
```

```
insert into BOOKING values('V01','CO1',to_date('1990-12-12',
'yyyy-mm-dd'),to_date('2022-12-12', 'yyyy-mm-dd'));
insert into BOOKING values('V02','CO2',to_date('2002-12-12',
'yyyy-mm-dd'),to_date('2021-04-12', 'yyyy-mm-dd'));
insert into BOOKING values('V03','CO3',to_date('2003-11-12',
'yyyy-mm-dd'),to_date('2022-05-12', 'yyyy-mm-dd'));
```

```
insert into BOOKING values('V04','CO4',to_date('2020-04-12',
'yyyy-mm-dd'),to_date('2022-07-12', 'yyyy-mm-dd'));
insert into BOOKING values('V05','CO5',to_date('1990-12-12',
'yyyy-mm-dd'),to_date('2022-06-12', 'yyyy-mm-dd'));
insert into BOOKING values('V06','CO6',to_date('1994-12-12',
'yyyy-mm-dd'),to_date('2022-07-12', 'yyyy-mm-dd'));
```

```
insert into SERVICEDOCK values('SD01','Dock Mac');
insert into SERVICEDOCK values('SD02','Dock Carnival');
insert into SERVICEDOCK values('SD03','Dock Princess');
insert into SERVICEDOCK values('SD04','Dock Diamond');
insert into SERVICEDOCK values('SD05','Dock BestCruise');
insert into SERVICEDOCK values('SD06','Dock Skies');
insert into SERVICEDOCK values('SD07','Dock TravelSeas');
insert into SERVICEDOCK values('SD08','Dock Happiness');
insert into SERVICEDOCK values('SD09','Dock AZCruise');
```

#### Task-2

```
select TourName, TourType, concat('$ ',tourcost) FROM tour
order by tourcost desc;
```

#### Task-3

```
select VesselId,FromDate, datediff(day, todate, fromdate) AS date_difference from booking;
```

#### Task-4

```
select vesselid, vesselname, vessel.vpurchaseyear, vessel.modelid
from vessel, model
where vessel.modelid=model.modelid
and model.modelname like 'Model-200%'
and vessel.vpurchaseyear > '2015';
```

#### Task-5

```
select distinct vessel.vesselname
from vessel join booking
using (vesselid)
where datediff(todate, fromdate) > 10
and vpurchaseyear between 2015 and 2020;
```



Task-6

```
select modelname, modelcapacity  
from model  
where modelid in (select modelid from vessel where vpurchaseyear>'2018');
```

Task-7

```
select distinct s1.staffname, s2.staffname  
from staff s1, staff s2, roster  
where s1.staffid=s2.managerid  
and roster.enddatetime>'1900';
```

Task-8

```
select modelcapacity as number_of_cruises, vesselname as vessel_name  
from vessel v,model m  
where v.modelid=m.modelid  
order by modelcapacity desc;
```

Task-9

```
select cruise.cruiseid, cruisename, numofdays, routeid  
from cruise, schedule  
where cruise.cruiseid=schedule.cruiseid  
and schedule.startdate is null;
```

Task-10